

<110> Statens Serum Institut, Copenhagen Denmark

<130> 20486US5

<150> US09/615,947

<151> 2000-07-13

<150> US09/246,191

<151> 1998-12-30

<160> 68

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 $\langle 210 \rangle$  1

<211> 324

<212> DNA

<213> Mycobacterium tuberculosis

 $\langle 220 \rangle$ 

<221> CDS

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aac gcc ccg cgt cgg aat cgc gtt ggg cgg caa cat ggt tgg ccg gcc 96  
Asn Ala Pro Arg Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala  
20 25 30

gac gtt ccg tcc gcc gag cag cgc cgc gcc caa cgg cag cgc gac ctc 144  
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu  
35 40 45

gag gct atc cgc cga gcg tac gcc gag atg gtg gcg aca tca cac gaa 192  
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu  
50 55 60

atc gac gac gac aca gcc gaa ctg gcg ctg ttg tcg atg cat ctc gac 240  
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp  
65 70 75 80

gat gag cag cgc cgg ctt gag gcg ggg atg aag ctc ggc tgg cat ccg 288  
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro  
85 90 95

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Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln

100

105

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 <213> Mycobacterium tuberculosis

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Glu	Ala	Ile	Arg	Arg	Ala	Tyr	Ala	Glu	Met	Val	Ala	Thr	Ser	His	Glu
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Ile	Asp	Asp	Asp	Thr	Ala	Glu	Leu	Ala	Leu	Leu	Ser	Met	His	Leu	Asp
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Asp	Glu	Gln	Arg	Arg	Leu	Glu	Ala	Gly	Met	Lys	Leu	Gly	Trp	His	Pro
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 <212> DNA  
 <213> Mycobacterium tuberculosis

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&lt;222&gt; (1)...(243)

&lt;400&gt; 3

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Glu	Leu	Val	Gly	Gly	Pro	Pro	Val	Glu	Ala	Ser	Ala	Ala	Ala	Leu	Ala	
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ggc	gac	gcc	gcg	ggc	gca	tgg	cgg	acc	gcg	gcc	gtc	gag	ctt	gcg	cga	144
Gly	Asp	Ala	Ala	Gly	Ala	Trp	Arg	Thr	Ala	Ala	Val	Glu	Leu	Ala	Arg	
		35				40						45				
gcg	ttg	gtc	cgc	gct	gtg	gcg	gag	tcg	cac	ggc	gtc	gcg	gcc	gtt	ttg	192
Ala	Leu	Val	Arg	Ala	Val	Ala	Glu	Ser	His	Gly	Val	Ala	Ala	Val	Leu	
	50					55					60					
ttc	gcc	gcg	acg	gcc	gcc	gcg	gcg	gcg	gcc	gtc	gac	cgg	ggt	gat	ccg	240
Phe	Ala	Ala	Thr	Ala	Ala	Ala	Ala	Ala	Ala	Val	Asp	Arg	Gly	Asp	Pro	
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Pro																

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<220>  
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 Pro Pro Glu Leu Asn Thr Ala Arg Leu Met Ala Gly Ala Gly Pro Ala  
 10 15 20 25  
 cca atg ctt gcg gcg gcc gcg gga tgg cag acg ctt tcg gcg gct ctg 150  
 Pro Met Leu Ala Ala Ala Ala Gly Trp Gln Thr Leu Ser Ala Ala Leu  
 30 35 40  
 gac gct cag gcc gtc gag ttg acc gcg cgc ctg aac tct ctg gga gaa 198  
 Asp Ala Gln Ala Val Glu Leu Thr Ala Arg Leu Asn Ser Leu Gly Glu  
 45 50 55  
 gcc tgg act gga ggt gcc agc gac aag gcg ctt gcg gct gca acg ccg 246  
 Ala Trp Thr Gly Gly Gly Ser Asp Lys Ala Leu Ala Ala Ala Thr Pro  
 60 65 70  
 atg gtg gtc tgg cta caa acc gcg tca aca cag gcc aag acc cgt gcg 294  
 Met Val Val Trp Leu Gln Thr Ala Ser Thr Gln Ala Lys Thr Arg Ala  
 75 80 85  
 atg cag gcg acg gcg caa gcc gcg gca tac acc cag gcc atg gcc acg 342  
 Met Gln Ala Thr Ala Gln Ala Ala Ala Tyr Thr Gln Ala Met Ala Thr  
 90 95 100 105  
 acg ccg tcg ctg ccg gag atc gcc gcc aac cac atc acc cag gcc gtc 390  
 Thr Pro Ser Leu Pro Glu Ile Ala Ala Asn His Ile Thr Gln Ala Val

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ctt	acg	gcc	acc	aac	ttc	ttc	ggt	atc	aac	acg	atc	ccg	atc	gcg	ttg	438			
Leu	Thr	Ala	Thr	Asn	Phe	Phe	Gly	Ile	Asn	Thr	Ile	Pro	Ile	Ala	Leu				
125				130				135											
acc	gag	atg	gat	tat	ttc	atc	cgt	atg	tgg	aac	cag	gca	gcc	ctg	gca	486			
Thr	Glu	Met	Asp	Tyr	Phe	Ile	Arg	Met	Trp	Asn	Gln	Ala	Ala	Leu	Ala				
140				145				150											
atg	gag	gtc	tac	cag	gcc	gag	acc	gcg	gtt	aac	acg	ctt	ttc	gag	aag	534			
Met	Glu	Val	Tyr	Gln	Ala	Glu	Thr	Ala	Val	Asn	Thr	Leu	Phe	Glu	Lys				
155				160				165											
ctc	gag	ccg	atg	gcg	tcg	atc	ctt	gat	ccc	ggc	gcg	agc	cag	agc	acg	582			
Leu	Glu	Pro	Met	Ala	Ser	Ile	Leu	Asp	Pro	Gly	Ala	Ser	Gln	Ser	Thr				
170				175				180				185							
acg	aac	ccg	atc	ttc	gga	atg	ccc	tcc	cct	ggc	agc	tca	aca	ccg	gtt	630			
Thr	Asn	Pro	Ile	Phe	Gly	Met	Pro	Ser	Pro	Gly	Ser	Ser	Thr	Pro	Val				
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ggc	cag	ttg	ccg	ccg	gcg	gct	acc	cag	acc	ctc	ggc	caa	ctg	ggt	gag	678			
Gly	Gln	Leu	Pro	Pro	Ala	Ala	Thr	Gln	Thr	Leu	Gly	Gln	Leu	Gly	Glu				
205				210				215											
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tcg	ttg	ttc	agc	cag	gtg	ggc	ggc	acc	ggc	ggc	ggc	aac	cca	gcc	gac	774			
Ser	Leu	Phe	Ser	Gln	Val	Gly	Gly	Thr	Gly	Gly	Gly	Asn	Pro	Ala	Asp				
235				240				245											
gag	gaa	gcc	gcg	cag	atg	ggc	ctg	ctc	ggc	acc	agt	ccg	ctg	tcg	aac	822			
Glu	Glu	Ala	Ala	Gln	Met	Gly	Leu	Leu	Gly	Thr	Ser	Pro	Leu	Ser	Asn				
250				255				260				265							
cat	ccg	ctg	gct	ggc	gga	tca	ggc	ccc	agc	gcg	ggc	gcg	ggc	ctg	ctg	870			
His	Pro	Leu	Ala	Gly	Gly	Ser	Gly	Pro	Ser	Ala	Gly	Ala	Gly	Leu	Leu				
270				275				280											
cgc	gcg	gag	tcg	cta	cct	ggc	gca	ggt	ggg	tcg	ttg	acc	cgc	acg	ccg	918			
Arg	Ala	Glu	Ser	Leu	Pro	Gly	Ala	Gly	Gly	Ser	Leu	Thr	Arg	Thr	Pro				
285				290				295											
ctg	atg	tct	cag	ctg	atc	gaa	aag	ccg	ggt	gcc	ccc	tcg	gtg	atg	ccg	966			
Leu	Met	Ser	Gln	Leu	Ile	Glu	Lys	Pro	Val	Ala	Pro	Ser	Val	Met	Pro				
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gcg	gct	gct	gcc	gga	tcg	tcg	gcg	acg	ggt	ggc	gcc	gct	ccg	gtg	ggt	1014			
Ala	Ala	Ala	Ala	Gly	Ser	Ser	Ala	Thr	Gly	Gly	Ala	Ala	Pro	Val	Gly				
315				320				325											
gcg	gga	gcg	atg	ggc	cag	ggt	gcg	caa	tcc	ggc	ggc	tcc	acc	agg	ccg	1062			
Ala	Gly	Ala	Met	Gly	Gln	Gly	Ala	Gln	Ser	Gly	Gly	Ser	Thr	Arg	Pro				
330				335				340				345							
ggt	ctg	gtc	gcg	ccg	gca	ccg	ctc	gcg	cag	gag	cgt	gaa	gaa	gac	gac	1110			

Gly Leu Val Ala Pro Ala Pro Leu Ala Gln Glu Arg Glu Glu Asp Asp  
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 <212> PRT  
 <213> Mycobacterium tuberculosis

<400> 6

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			20					25					30		
Gly	Trp	Gln	Thr	Leu	Ser	Ala	Ala	Leu	Asp	Ala	Gln	Ala	Val	Glu	Leu
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Thr	Ala	Arg	Leu	Asn	Ser	Leu	Gly	Glu	Ala	Trp	Thr	Gly	Gly	Gly	Ser
	50					55					60				
Asp	Lys	Ala	Leu	Ala	Ala	Ala	Thr	Pro	Met	Val	Val	Trp	Leu	Gln	Thr
65				70						75				80	
Ala	Ser	Thr	Gln	Ala	Lys	Thr	Arg	Ala	Met	Gln	Ala	Thr	Ala	Gln	Ala
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Ala	Ala	Tyr	Thr	Gln	Ala	Met	Ala	Thr	Thr	Pro	Ser	Leu	Pro	Glu	Ile
			100					105					110		
Ala	Ala	Asn	His	Ile	Thr	Gln	Ala	Val	Leu	Thr	Ala	Thr	Asn	Phe	Phe
		115					120					125			
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	130					135					140				
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145				150						155				160	
Thr	Ala	Val	Asn	Thr	Leu	Phe	Glu	Lys	Leu	Glu	Pro	Met	Ala	Ser	Ile
			165						170					175	
Leu	Asp	Pro	Gly	Ala	Ser	Gln	Ser	Thr	Thr	Asn	Pro	Ile	Phe	Gly	Met
			180					185					190		
Pro	Ser	Pro	Gly	Ser	Ser	Thr	Pro	Val	Gly	Gln	Leu	Pro	Pro	Ala	Ala
		195					200					205			
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	210					215					220				
Leu	Thr	Gln	Pro	Leu	Gln	Gln	Val	Thr	Ser	Leu	Phe	Ser	Gln	Val	Gly
225					230					235				240	
Gly	Thr	Gly	Gly	Gly	Asn	Pro	Ala	Asp	Glu	Glu	Ala	Ala	Gln	Met	Gly
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	275						280					285			
Ala	Gly	Gly	Ser	Leu	Thr	Arg	Thr	Pro	Leu	Met	Ser	Gln	Leu	Ile	Glu
	290					295					300				
Lys	Pro	Val	Ala	Pro	Ser	Val	Met	Pro	Ala	Ala	Ala	Ala	Gly	Ser	Ser
305				310						315				320	
Ala	Thr	Gly	Gly	Ala	Ala	Pro	Val	Gly	Ala	Gly	Ala	Met	Gly	Gln	Gly
			325					330					335		
Ala	Gln	Ser	Gly	Gly	Ser	Thr	Arg	Pro	Gly	Leu	Val	Ala	Pro	Ala	Pro
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0962505-060101

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 Asp Asp Trp  
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 <213> Mycobacterium tuberculosis

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 Glu Met

09672505-060101

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<212> PRT
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<213> Mycobacterium tuberculosis

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<210> 18

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<213> Mycobacterium tuberculosis

<400> 18

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<210> 19

<211> 18

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<213> Mycobacterium tuberculosis

<400> 19

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<211> 18

<212> PRT

<213> Mycobacterium tuberculosis

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<210> 21

<211> 18

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<212> PRT

<213> Mycobacterium tuberculosis

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<210> 30  
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00872505-060104

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<210> 36  
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<210> 38  
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Pro Val

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 <212> PRT  
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<210> 44

05072505-060101

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